

REMARKS

Claims 1-34, 37-68, 71-73, and 76-138 are now present in this application, with claims 35, 36, 69, 70, 74, and 75 being cancelled without prejudice or disclaimer of the subject matter contained therein.

Information Disclosure Statement

Applicants wish to thank the Examiner for consideration of many of the Information Disclosure Statements filed in connection with the present application. However, upon review of the application file, Applicants have noticed that the Examiner has not yet indicated consideration of the Information Disclosure Statement of October 5, 2007. **Accordingly, Applicants respectfully request the Examiner to consider each of the documents cited in the Information Disclosure Statement of October 5, 2007, and respectfully request the Examiner to initial and return the PTO-1449 form submitted therewith.**

Restriction Requirement

Initially, Applicants note that the Examiner withdrew claims 96-102, 104-110, and 112-130 from consideration in connection with the present application. With regard to any claims which are dependent upon eventually allowed claims, Applicants respectfully reserve the right to rejoin these claims to the prosecution of the present application. Further, with regard to new claims 131-138, Applicants respectfully request examination of these claims, along with elected claims 1-4, 15-16, 21-24, 31-38, and 50-76 in connection with the present application.

Claim Rejections Under 35 U.S.C. §101

The Examiner rejected claims 69-71 and 74-76 under 35 U.S.C. §101 as allegedly being directed to non-statutory subject matter. Applicants respectfully traverse.

Initially, Applicants cancelled claims 69, 70, 74, and 75, without prejudice or disclaimer of the subject matter contained therein, and thus any rejection thereof is now moot. In addition, Applicants further cancelled independent program claims 36 and 37 in connection with the present application, without prejudice or disclaimer of the subject matter contained therein.

However, with regard to **claims 71 and 76, these claims are amended to clarify that they are directed to a computer readable medium** which is statutory subject matter. Accordingly, these claims have not been cancelled in connection with the present application and the rejection thereof is respectfully traversed.

With regard to claims 71, and 76, the Examiner references paragraphs 395-397 of the present specification and alleges that the claimed computer readable medium is non-statutory. Applicants note that the specification **only contains 310 paragraphs** and thus the Examiner's rejection is not understood. Further, computer readable medium claims are statutory as acknowledged by MPEP §101.

Applicants draw the Examiner's attention to MPEP §2106.01(I), first paragraph, which explains that functionally descriptive material such as a claimed computer-readable medium encoded with a data structure, that defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the structure's functionality to be realized, is statutory. Applicant submits that claims 71 and 76 are directed to computer-readable medium encoded with functionally descriptive data structures, as described in MPEP §2106.01(I).

First, claims 71 and 76 are claiming "computer-readable mediums".

Second, the claims, as amended, now reference program segments for performing the claimed methods, and are thus data structures. Third, the claims, as amended, define the structural and functional interrelationships between the data structure and the hardware components, as the claim references the method steps and discusses the segments, when executed on a computer device, cause the computer device to implement the method steps. Accordingly, withdrawal of the rejection is respectfully requested.

Example Embodiment of the Present Application

The present application, in at least one embodiment, is directed to a color display device that determines a relationship between a plurality of color components of an input color signal, and then carries out a calculation based on the relationship for each of the plurality of color components using variables varying depending on the respective gradation levels of the plurality of color components. For example, as shown in Figures 2 and 4, an image may be broken into six color areas for example, each involving a combination of various color components. In area 1, the red color component is relatively strongest, followed by the green color component and then the blue color component. In area 2, the red color component is relatively strongest, followed by the blue color component and then the green color component. For each of these areas, **calculations may be carried out using variables depending on gradation levels of the plural color components as shown in Figures 2 and 4 for example.**

Accordingly, based upon the examples shown in Figures 2 and 4 for example, calculations to perform color compensation involve variables depending respective gradation levels of the various color components in the various areas.

For example, in area 1 as shown in Figures 2 and 4, color compensation may be performed in some manner, noting that red is relatively greater than green, which is relatively greater than blue in that particular area. Color conversion can take place based on the various factors as shown in Step S203 of Figure 2 for example, and thereafter color conversion signals may be generated and output as shown in Steps S204 and S205 for example.

Prior Art Rejections

The Examiner has rejected claims 1-3, 33-38, 63-67, 69-72, and 74-76 under 35 U.S.C. §102(e) as being anticipated by Winkelman (U.S. Patent No. 5,748,802, the Winkelman '802 Patent). This rejection is respectfully traversed.

Distinctions from the Winkelman '802 Patent

The Winkelman '802 Patent is directed to correcting image creation characteristics based on a **frequency distribution of luminance components** of color values and relevant sub-images, and does not have anything to do with using variables depending on gradation levels of plural color components (see Figures 8A and 8B of the Winkelman '802 Patent for example). In addition to merely correcting for luminance factors (see column 9, line 54 to column 13, line 45 for example), the Winkelman '802 Patent does not provide any teaching or suggestion of carrying out calculations "using variables dependent on gradation level of plural color components" as claimed in claim 1 of the present application for example.

As described in column 7, lines 34-50 of the Winkelman '802 Patent, the Winkelman method discloses converting color values R, G, and B of respective devices — dependent color spaces into color values of device-independent communication color space. **The Winkelman '802 Patent is silent** in any teaching or suggestion of determining a **relationship** between color components in

terms of **gradation levels** of the color components (there is no relationship of red, green, or blue values being relatively greater or less than one another). As such, **the Winkelman '802 Patent does not provide any teaching** or suggestion of carrying out calculations “**using variables dependent on gradation level of plural color components**” as claimed in claim 1 of the present application for example.

Further, as described in column 10, lines 66 to column 12, line 43 of the Winkelman '802 Patent, the Winkelman method discloses the valuation of a sub-image histogram. As such, Winkelman calculates histogram parameter SDev “scatter” and FLAnt “rel. area proportion” for every sub-image by using the mean value (see column 11, line 22 of the Winkelman '802 Patent for example). As described in column 12, line 35 of the Winkelman '802 Patent, a concept of minimum value of luminance is disclosed. This minimum value is used for identifying most frequent image values. As described in column 12, lines 38-44, after calculation of the histogram parameter SDev and FLAnt, histogram parameters are recalled in and compared to the corresponding threshold SwSDev and SwFLAnt.

Therefore, Applicants respectfully submit that the Winkelman '802 Patent fails to teach or suggest at least “using variables varying depending on the respective gradation levels of the plural color components” as set forth in independent claim 1, and as similarly set forth in independent claims 33, 37, 63, and 66. Further, with regard to independent claim 2, Applicants respectfully submit that the Winkelman '802 Patent fails to teach or suggest at least “using variables varying depending on the respective gradation levels of the three color components,” which is somewhat similarly set forth in each of independent claims 34, 38, 65, and 72.

Accordingly, for at least the aforementioned reasons, Applicants respectfully submit that each of pending independent claims 1, 2, 33, 34, 37, 38, 63, 64, 66, and 72 is allowable over the Winkelman '802 Patent. With regard to the remaining dependent claims, these claims are allowable for at least the reasons previously set forth regarding the corresponding independent claims.

Claim Rejections Under 35 U.S.C. §103

The Examiner rejected claims 68 and 73 under 35 U.S.C. §103 as being unpatentable over the Winkelman '802 Patent and further in view of the Yamashita et al. Patent (U.S. Patent No. 6,101,271, the Yamashita '271 Patent). This rejection is respectfully traversed.

Applicants respectfully submit that even assuming *arguendo* that the Yamashita '271 Patent could be combined with the Winkelman '802 Patent, which is not admitted, the Yamashita '271 Patent would still fail to make up for at least the previously mentioned deficiency of the Winkelman '802 Patent. Accordingly, for at least the reasons previously set forth, Applicants respectfully submit that each of the claims of the present application are allowable over the alleged combination of the Winkelman '802 Patent and the Yamashita '271 Patent, even assuming *arguendo* that they could be combined.

Allowable Subject Matter

Applicants thank the Examiner for the indication that claims 4, 15, 16, 21-24, 31-32, and 60-62 would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. As Applicants believe that each of the pending independent claims is allowable for at least the reasons previously set forth, Applicants have not rewritten the objected dependent claims into independent form at this time.

New Claims

Applicants added new claims 131-138 in connection with the present application. Each of these claims is dependent upon an independent claim and is therefore allowable for at least the reasons previously set forth regarding their corresponding independent claims.

Further, with regard to claim 131 for example, this claim sets forth that the gradation level of the color component with the relatively smallest gradation level remains unchanged before and after the calculation. As such, color compensation can take place without the relatively smallest gradation level having an effect on color compensation. This is supported by, but not limited to the example embodiments shown in Figures 2 and 4 of the present application, for example, wherein in area 1, the blue component is the component with the relatively smallest gradation level and thus would remain unchanged, with color compensation involving the red and yellow components; and wherein in area 3, the yellow color component would be the component with the relatively smallest gradation level, etc. Applicants respectfully submit that not only do the Winkelman '802 and Yamashita '271 Patents fail to teach or suggest using variables depending on gradation level of the plural (or three) color components as set forth in the independent claims, they clearly have nothing to do with calculations wherein "the gradation level of the color component with the relatively smallest gradation level remains unchanged before and after the calculation." Accordingly, Applicants respectfully submit that each of new claims 131, 133, 135, and 137 is allowable over the prior art of record.

Further, with regard to new dependent claims 132, 134, 136, and 138, these claims set forth that the relatively greatest component in the gradation level is

compensated using both the compensation value of the relatively greatest component and the compensation value of the complementary color of the relatively greatest component, and the second greatest component and the second relatively greatest component. At least such a feature is not taught or suggested by the Winkelman '802 Patent or the Yamashita '271 Patent. Such a feature is supported by, but not limited to an example embodiment shown in Figures 2 and 4 of the present application, for example, wherein in area 1 shown in Figures 2 and 4, color compensation may be performed with respect to the relatively greatest component in gradation level (signal R) and the second relatively greatest component in gradation level (signal G) such that the signal R is compensated by using a compensation value r_o of a component R and the compensation value y_o of the y component, namely the complementary color of the relatively greatest component R; and wherein, the second relatively greatest component signal G may be compensated by using the compensation value of the complementary value of the relatively greatest component (y_o) and the second relatively greatest component. At least such a teaching is not taught or suggested by either of the Winkelman '802 Patent and Yamashita '271 Patents. Accordingly, each of claims 132, 134, 136, and 138 is additionally allowable over the prior art of record.

Rejoinder Requested

Applicants respectfully submit that each of independent claims 1, 2, 33, 34, 37, 38, 63, 65, 66, and 72 is in condition for allowance. Accordingly, **Applicants respectfully request rejoinder of all claims dependent upon the allowable independent claims**, as each of these claims include all of the limitations of the independent claims, which essentially acts as a linking claim or allowable generic claim.

CONCLUSION

Accordingly, in view of the above amendments and remarks, reconsideration of the objections and rejections and allowance of each of the claims in connection with the present application is earnestly solicited.

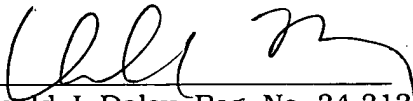
In the event this Response does not place the present application in condition for allowance, applicant requests the Examiner to contact the undersigned at (703) 668-8000 to schedule a personal interview.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully Submitted,

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